

**REMARKS**

In the September 20, 2005 Office Action, claims 6-9 stand rejected in view of prior art. Claims 6-9 also were rejected for failing to indicate and to claim particularly and distinctly the subject matter that Applicants regard as the invention. In the September 20, 2005 Office Action, all of the claims stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

***Status of Claims and Amendments***

In response to the September 20, 2005 Office Action, Applicants have amended the drawings and claim 6 as indicated above. Thus, claims 6-9 are pending, with claim 6 being the only independent claim. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

***Claim Rejections - 35 U.S.C. §112***

In item 2 of the Office Action, claim 6-9 was rejected under 35 U.S.C. §112, second paragraph. In response, Applicants have amended claim 6.

Specifically, it was stated that the term "the second terminal of the amplification unit" lacked antecedent basis. In response, the term has been amended to read -- the output terminal of the amplification unit --.

Applicants believe that the claims now comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejection is respectfully requested.

***Rejections - 35 U.S.C. § 102***

In item 4 of the Office Action, claims 6, 7, and 9 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,748,041 (Kimura). In response, Applicants have amended claim 6 to define clearly the present invention over the prior art of record.

In particular, independent claim 6 recites that the current source is connected to the output (second) terminal of the amplification unit and the third input terminal of the mixing unit. As seen in Figure 1 of Kimura, the current source 3 is connected to an input terminal (emitter of Q2) of what is identified in the Office Action as the mixing unit. Further, in contrast to the recitation of claim 6 of the present application, the current source 3 is connected to ***the input or third terminal (emitter of Q3)*** of what is identified in the Office Action as the amplification unit.

Further, claim 6 has been amended to recite that the quantity of current being provided to ***the third input terminal*** of the mixing unit is equal to the specific quantity of current provided by the current source and a quantity of current provided by the amplification unit. As seen in Figure 1 of Kimura, the current source 3 is connected to the input terminals of what is identified in the Office Action as the amplification unit and mixing unit. Thus, Applicants respectfully asserts that current is not provided by the amplification unit to the third input terminal of the mixing unit as claimed.

Clearly, this structure is ***not*** disclosed or suggested by Kimura or any other prior art of record. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicants respectfully submit that claim 6, as now amended, is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Moreover, Applicants believe that dependent claims 7, 8, and 9 are also allowable over the prior art of record in that they depend from independent claim 6, and therefore are allowable for the reasons stated above. Also, the dependent claims are further allowable because they include additional limitations. Thus, Applicants believe that since the prior art

of record does not anticipate the independent claim 6, neither does the prior art anticipate the dependent claims.

Applicants respectfully request withdrawal of the rejections.

***Rejections - 35 U.S.C. § 103***

In item 6 of the Office Action, claim 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,748,041 (Kimura) in view of U.S. Patent No. 6,147,559 (Fong). In response, Applicants have amended independent claim 6.

In particular, independent claim 6 recites that the current source is connected to the output (second) terminal of the amplification unit and the third input terminal of the mixing unit. As seen in Figure 1 of Kimura, the current source 3 is connected to an input terminal (emitter of Q2) of what is identified in the Office Action as the mixing unit, and ***the input or third terminal (emitter of Q3)*** of what is identified in the Office Action as the amplification unit.

Further, claim 6 has been amended to recite that the quantity of current being provided to ***the third input terminal of the mixing unit*** is equal to the specific quantity of current provided by the current source and a quantity of current provided by the amplification unit. As seen in Figure 1 of Kimura, the current source 3 is connected to the input terminals of what is identified in the Office Action as the amplification unit and mixing unit. Thus, Applicants respectfully asserts that current is not provided by the amplification unit to the third input terminal of the mixing unit as claimed.

Moreover Fong, which is referenced to show a capacitor connecting first and second terminals of an amplification element, also fails to disclose or suggest these features. Since neither reference discloses or suggests this feature, the combination thereof also fails to disclose or to suggest this feature.

Clearly the arrangement of claim 6 is *not* disclosed or suggested by the prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art *suggests* the desirability of the modification. Accordingly, the prior art of record lacks any suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement of a mixer circuit.

Moreover, Applicants believe that the dependent claim 8 is also allowable over the prior art of record in that it depends from independent claim 6, and therefore is allowable for the reasons stated above. Also, the dependent claim is further allowable because it includes additional limitations. Thus, Applicants believe that since the prior art of record does not disclose or suggest the invention as set forth in independent claim 6, the prior art of record also fails to disclose or suggest the invention as set forth in the dependent claim.

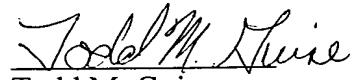
Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 6-9 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

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Respectfully submitted,

  
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